



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR 7 — CHART INFORMATION

SECTOR 7

WEST COAST OF SUMATERA—UDJUNG TUAN TO TANJUNG BALIMBINGPAMANCASA

Plan.—This sector will be divided into two parts. The W coast of Sumatera from Udjung Tuan SE to Tanjung Balimbingspamanancasa (Vlakke Hoek) will be described first.

The off-lying islands between the two above-mentioned points will then be described.

Udjung Tuan to Padang

7.1 Udjung Tuan (Ujung Tuan) (0°15'N., 99°08'E.) is a rocky point. A 175m hill, with a remarkable broad conical summit, lies close SE of the point.

Ujung Biang (0°14'N., 99°10'E.), another rocky point, lies about 3 miles SE of Udjung Tuan. Bukit Bargambar, 4 miles E of Ujung Biang, shows up well from the S; it appears as a blunted knoll rising from an extensive mountain ridge.

The coast from Udjung Tuan to Ujung Biang and then continuing E to Airbangis Road is mountainous.

Airbangis Road (0°10'N., 99°20'E.), about 9 miles across, is entered between Ujung Bukit and Ujung Sawang Puding; the road contains several isolated islands and shoals.

The village of Airbangis is situated on the E shore of the bay; the government representative that is here acts as the harbormaster.

Pulau Pangkal (0°08'N., 99°17'E.), the SW island off Airbangis, has a small, sharp pointed hill, 53m high, on its SW side. The island is marked by a light.

Pulau Talur (0°07'N., 99°21'E.), the SE island, is low and covered with coconut trees.

Pulau Pugago (0°10'N., 99°17'E.), about 2 miles NW of Pulau Pangkal, is oblong and covered with coconut trees.

Pulau Panjang (Pandjang) (0°11'N., 99°18'E.), 75m high, about 2 miles NE of Pulau Pugago, is a similar island but larger.

7.2 Pulau Kasi (0°12'N., 99°19'E.), which dries, lies about 1 mile NE of Pulau Panjang and is easily distinguished.

Sichangang (0°10'N., 99°24'E.), a flat-topped hill, rises about 3 miles S of Airbangis and forms the SE extremity of Airbangis Road, from it, the coast trends in a general SE direction for about 28 miles to **Ujung Katiagan** (0°08'S., 99°45'E.). A rocky hill rises immediately over Ujung Katiagan.

Ujung Masang (0°18'S., 99°48'E.), about 10 miles SSE of Ujung Katiagan, is low, with a reef stretching out about 0.5 mile and should not be approached going under a depth of 31m. Sungai Masang enters the sea at the point.

Tiku Road (Tikoe Road) (0°25'S., 99°55'E.), about 9 miles SE of Ujung Masang, is in some measure protected by the low islands off it, which are overgrown with coconut trees, but nevertheless a heavy swell sets into the anchorage during NW and SW winds.

Tapi Peninsula (0°24'S., 99°55'E.), formerly an island, is now joined to the mainland by a bare sand ridge, but has the appearance of an island when seen from a distance along the shore.

Tiku (Tikoe) (0°24'S., 99°55'E.) (World Port Index No. 50470) is situated within Tapi Peninsula at the mouth of the river.

Three islands extend in a SW direction from Tiku. From N, they are Karsik, Tangah, and Pulau Ujung; the latter about 2 miles SW of Tapi Peninsula. Each of these islands is fringed by a reef. These islands should not be confused with the islands of the same name located in the vicinity of Pariaman Road.

7.3 Pariaman Road (Priaman Road) (0°38'S., 100°06'E.) is situated about 18 miles SE of Tiku Road. The town of Pariaman (Priaman) (0°38'S., 100°07'E.) (World Port Index No. 50460) is located on the S point of a small river and is the headquarters of an administrator.

Pariaman Islands (0°39'S., 100°06'E.), three in number, are low and wooded; they lie in a NNW and SSE direction abreast the town.

Pulau Anso, the northernmost island, is surrounded by a reef. Tangah, the middle islet, lies about 0.7 mile from Pulau Anso; a reef surrounds it mostly on its W side.

Oedjoeng the S islet, lies about 1 mile from Tangah and is surrounded by a reef. Tangah and Oedjoeng should not be confused with the islands of the same name located near Tiku Road.

Pulau Karsik (0°36'S., 100°04'E.) lies about 3 miles NW of the town of Pariaman and about 2 miles offshore; it is small, covered with trees, and encircled by a reef. It should not be confused with the island of the same name located near Tiku Road.

The coast from Pariaman Road to Padang Road, a distance of about 24 miles, is said to be free of dangers near the shore.

Sao (0°52'S., 100°17'E.), about 8 miles N of Padang Road, is separated from the mainland by a clear channel about 1.3 miles wide. The island is overgrown with coconut trees and surrounded by a narrow reef.

7.4 Padang Road (0°59'S., 100°18'E.), the anchorage of Padang, is exposed and of little importance since construction of the breakwater at the head of Teluk Bayur (see paragraph 7.10). The road is dependent on weather conditions; the operation of discharging or loading cargo is very difficult for the native lighters when a strong W or NW wind gets up, as the entrance to the **Batang Arau** (0°58'S., 100°21'E.) becomes dangerous on account of the breakers; all communications with the shore at such times ceases, and it takes as much as 2 hours, rowing, to cover the 2 miles to the roadstead.

Apenberg (0°58'S., 100°20'E.), the S point of entrance to the Batang Arau, is a bluff headland, 108m high, and thickly wooded. Whale Rock lies close W of the head. In approaching from the offing Apenberg will easily be known by its bluff aspect and the coast S of it being bold high land; the land near the sea to the N of the river is low, and all the coast is low then to Pariaman, but far back from the coast the land is generally high.

Pisang (1°00'S., 100°20'E.), an island lying about 2 miles S of Apenberg, is hilly, 0.4 mile in length in a N and S direction, and 0.3 mile in breadth, with two landing piers on its E side.

A coral reef encircles the island to the distance of 137m in places. Pisang Kechil lies between Pisang and the shore; it is connected with the shore by a sunken rocky ridge.

7.5 Padang (0°57'S., 100°21'E.), the principal town and trading center of the W coast of Sumatera, is situated on a flat coastal strip on the N bank of Batang Arau. The town is also the semipermanent seat of the Governor of Central Sumatera, as well as being a garrison town and railway headquarters.

The town, of rectangular layout, with a radical pattern to the S, covers an area of 2 square miles and is protected in the N and E by flood canals. Teluk Bayur is the port of Padang.

In Padang Road, the flood sets to the NW and ebb to the SE, at a rate of not more than 1 knot.

Ujung Biang Reef (0°13'N., 99°08'E.), with a depth of 2.7m, which sometimes breaks and is marked by discoloration, lies 2.5 miles S of Udjung Tuan.

Labuang Lulu Reef (0°10'N., 99°10'E.), lying about 3 miles S of Ujung Biang, has a depth of 6m; it is not marked by discoloration.

Makasser Reef (0°07'N., 99°13'E.), with a depth of 2.7m, lies about 4.3 miles WSW of Pulau Pangkal.

Van Speijk Reef (0°01'S., 99°20'E.), with a depth of 3.2m, lies 10 miles SSE of Pulau Pangkal; this reef sometimes breaks.

Moller Reef (0°04'S., 99°24'E.), marked by a light, lies 5 miles SE of Van Speijk Reef. The least depth is a rock with less than 1.8m of water; depths of less than 11m extend almost 0.5 mile N of the rock.

Gosong Satu (0°01'N., 99°27'E.), awash, lies about 7 miles NE of Moller Reef and 7 miles offshore.

Dua Reef (0°04'N., 99°26'E.) consists of two reefs about 0.2 mile apart, which are awash and always breaking; they lie about 3 miles NNW of Gosong Satu.

Sikarbau Reef (0°06'N., 99°23'E.), consisting of two reefs, the NE of which is awash and breaks, is situated about 2.2 miles ESE of Pulau Talur. The SW reef has a depth of less than 1.8m, and is difficult to distinguish.

Sylph Reef (0°06'N., 99°25'E.), with a least depth of 0.9m, lies 2 miles E of Sikarbau Reef, and seldom breaks.

A reef with a depth of 0.9m and a 6.9m patch close SE of it, are situated about 0.9 mile N of **Pulau Talur** (0°07'N., 99°21'E.).

A reef with a depth of 3.2m lies 0.3 mile E of the S point of Pulau Pangkal. A drying reef lies nearly 1 mile W of the N point of Pulau Pugago.

To the S of the shoals lying in the S approach to **Airbangis Road** (0°10'N., 99°20'E.), and W and S of **Ujung Masang** (0°18'S., 99°48'E.), are many outlying reefs for which the chart is the best reference; some of these reefs occasionally break. Others may exist, and a constant lookout from aloft should be kept when in this vicinity.

From **Fabhool Mobarak Reef** (Fatahool Marak) (0°20'S., 99°8'E.) and the 4.6m patch about 2 miles NW, these numerous reefs extend in an ESE direction.

A reef in Tiku Road, steep-to, lies in the fairway between **Pulau Ujung** (0°25'S., 99°53'E.) and Tangah; it dries in places

and is marked by discoloration. A drying patch lies 0.2 mile N of Tangah. Between Pulau Ujung and Tangah there is a channel with depths of 14.6m on either side of the drying reef.

Doerian Reef (0°37'S., 100°01'E.) lies about 4 miles WSW of Pulau Karsik.

Kajoe Poetih (0°38'S., 100°02'E.), which often breaks, with a depth of 3.7m, lies about 2 miles ESE of Doerian Reef.

Three Reefs, with depths of 2.3 to 3.7m lie within 1 mile N to E of Kajoe Poetih.

Sepulu Reef (0°38'S., 100°05'E.), steep-to, with a depth of 7.8m, fronts the town of Priaman.

Sibarat Reef (0°40'S., 100°06'E.), which dries at LW, lies about 1 mile SW of Oedjoeng.

In the N approach to **Padang Road** (0°59'S., 100°18'E.), the Pading Islands, seven in number, interspersed with numerous reefs which can best be seen on the chart, lie from 6 to 13 miles off the town of Padang and the coast N; they are all covered with coconut trees.

7.6 Pulau Bando (0°46'S., 99°59'E.), the northernmost islet, is small, encircled by a reef, and lies about 25 miles NW of the town of Padang. A conspicuous tree, visible for about 12 miles, stands on Pulau Bando.

Pulau Nyamuk (Njamoek) (1°16'S., 100°18'E.), about 20 miles SSW of the town of Padang, is the southernmost islet. It is low, sandy, covered with coconut palms, and has reefs extending a short distance from it. It is necessary to keep a careful lookout from aloft when navigating this area; the chart is the best guide.

A bank, with less than 5.5m of water, fronting the coast between Apenberg and **Ujung Jungut Batu Pati** (Oedjoeng Djoengoet Batoe Pati) (1°00'S., 100°22'E.), the W limit of Teluk Bayur, extends about 0.5 mile off these points, and to about 0.2 mile from Pisang.

7.7 Gunung Talakmau (0°05'N., 99°59'E.) rises to a height of 2,912m about 19 miles NE of Ujung Katiagan; it appears like a cone, separated from the chain of other mountains, and is visible 110 miles in clear weather. It is the highest mountain on Sumatera visible from the sea.

Gunung Pasaman (0°03'N., 99°57'E.) rises to a height of 2,190m, about 3 miles SW of Gunung Talakmau.

Gunung Singgalang (0°23'S., 100°20'E.) rises to a height of 2,877m, about 36 miles SE of Gunung Pasaman.

Marapi (0°23'S., 100°28'E.) rises to a height of 2,891m, about 8 miles E of Gunung Singgalang.

Within **Ujung Masang** (0°18'S., 99°48'E.) there is marshy land, with several hills rising out of it, offering good landmarks for vessels coasting.

They are **Masang** (0°16'S., 99°53'E.), 224m high, the easternmost and highest, with a flat summit; **Antokan** (0°17'S., 99°52'E.), 173m high, the southernmost; **Laboehan** (0°15'S., 99°50'E.), 146m high, the westernmost; and **Pandji** (0°15'S., 99°51'E.), 103m high, the northernmost, which is crowned by high trees.

7.8 Gunung Tiga (0°29'S., 100°14'E.) rises to a height of 494m NE of the town of Pariaman about 10 miles from the coast; when seen from the W it is somewhat conical in shape and has three tops, the S being the lowest.

Dolok Sulasih (0°35'S., 100°14'E.), 198m high, rises about 5 miles S of Gunung Tiga, about 8 miles from the coast; it appears conical in shape when seen from the W.

Tjoebadak (Tjubadak) (0°48'S., 100°21'E.), 487m high, rises about 4 miles from the coast.

Padang (0°57'S., 100°21'E.) is easily identified in clear weather, as it affords good landmarks to vessels approaching it.

Talang (0°58'S., 100°40'E.), 2,597m high, is located in the W portion of the Padang Highlands, about 20 miles E of **Apenberg** (0°58'S., 100°20'E.). It has three craters; one is extinct, another emits thick sulphurous fumes, and the last is filled with a burnt-up lava lake.

7.9 Gadoet (0°54'S., 100°31'E.), 1,859m high; **Gantang** (1°00'S., 100°30'E.), 1,370m high, between Tadang and the coast; **Padang Berg** (0°58'S., 100°22'E.), 322m high on which there is a signal staff, near Apenberg; and **Mount Pangilun** (Pangeleon) (0°55'S., 100°22'E.), 92m high, N of it, are also conspicuous objects, and the islets mentioned in the approaches should be all easily identified.

On a nearer approach the lighthouse and flagstaff of **Ujung Batumandi** (1°03'S., 100°22'E.) will be seen.

A light is shown from a skeleton iron tower, 31m high, on the E side of **Pulau Nyamuk** (1°16'S., 100°18'E.).

Directions.—Bargambar Mountain (0°13'N., 99°13'E.), open N or S of Ujung Biang, clears the **Pylades Reefs** (0°21'N., 98°51'E.).

If intending to take the inshore route from **Pulau Tamang** (0°22'N., 99°06'E.) anchorage S to Airbangis Road, pass between Pulau Tamang and the coast, keeping on the island side; then in mid-channel between the island and Ujung Palimbungan, and when the latter bears 079°, steer toward Udjung Tuan to avoid the two reefs lying WNW of that point.

The 10m curve passes about 2 miles from Ujung Palimbungan and Udjung Tuan, but between these points, and sometimes outside, the depths are less, and the shore, which in this space contains some bays, is safe to approach to depths of 10.1 to 11m.

When Udjung Tuan bears about 090° steer to pass N of Ujung Biang Reef, marked by a beacon; when entering Airbangis Road N of Pulau Pugago and Pulau Pandjang pass between the latter island and Pulau Kasi to the anchorage.

This passage is undesirable for large vessels, but vessels of every description, by whatever channel they enter Airbangis Road, must keep a good lookout aloft for shoals.

Proceeding S from Airbangis Road, bearings of Pulau Talur and other objects will enable a vessel to pass between Moller Reef and Gosong Satu, then for Ujung Masang and **Tiku Road** (0°25'S., 99°55'E.).

It may be approached from Tiku Road by reversing these directions.

The following clearing marks are useful for vessels using the inshore route:

1. The N point of Pulau Pandjang in range with Ujung Batu Barlayar, the point about 3 miles W, leads N of Ujung Biang Reef.
2. Sichangang, in range with the N point of Pulau Pugago, leads between Ujung Biang Reef and Labuang Lulu Reef, but right across the reef about 1 mile W of Pulau

Pugago. This range leads from the anchorage in the bay to the offshore route.

3. The N point of Pulau Pandjang, in range with the N point of Pulau Pugago, leads S of Labuang Lulu Reef.

4. The light structure on Pulau Tamang bearing 350° leads W of Ujung Biang Reef.

The usual inshore route from Airbangis to Natal is to steer 296° with Pulau Pangkal bearing 116° astern. This course leads between Labuang Lulu Reef and the shore.

When the W point of Pulau Tamang bears 337° alter course to clear Ujung Biang Reef. When Ujung Biang Reef bears 270° steer a little outside of Pulau Tamang.

After passing Pulau Tamang, steer for a position 2 miles W of Kapal Reef, then steer for **Bukit Sikarakara** (0°38'N., 99°05'E.) bearing about 038°, until **Bukit Mander** (0°34'N., 99°07'E.) bears 090°, then proceed for the anchorage.

If intending to use the outer routes within **Kepulauan Batu** (0°10'S., 98°30'E.), vessels from the N proceeding to Airbangis Road, outside the shoals, or to the S, should from abreast Pulau Tamang, distance 7 or 8 miles, steer about 175°, passing about 2 miles W of **Bajang Reef** (0°17'N., 99°00'E.); when Ujung Biang bears 090°, alter course to 130°.

When Bukit Sikarakara is in range with the W point of Pulau Tamang bearing N, course may be altered more to the E, to pass N or S of Makasser reef, lying about 4.3 miles WSW of **Pulau Pangkal** (0°08'N., 99°17'E.), on a bearing of the light on that island.

The sea breaks on some of the shoals off Airbangis Road when there is much swell, and between most of them there are safe channels, but the shoals are not always discernible when the sea is smooth. Pulau Pangkal, bearing 090°, leads N of Makasser Reef, and between it and **Labuan Lulu Reef** (0°10'N., 99°10'E.), lying 5 miles to the NW.

Then pass on either side of Pulau Pangkal to the anchorage, avoiding the shoals in the road. The best channel is N of Pulau Pangkal, where the depths are 18.3 to 20.1m over soft bottom.

Pulau Ujung (Oedjoeng) (0°25'S., 99°53'E.) lighthouse should be approached bearing more than 090° to avoid the numerous shoals in the offing S and SW, over some of which the swell may be seen to roll if there is any sea. Pass S and E of it to the anchorage at Tiku Road.

Approaching Pariaman Road from the N along the shore, bring Pulau Ujung lighthouse to bear 315°; keeping it astern on that bearing will lead between **Gosong Reefs** (0°28'S., 99°58'E.) and **Soengai Bamban** (0°32'S., 99°59'E.) direct for Pulau Karsik off Pariaman.

Pass W of that islet; then steer 161° to pass W of **Sepula Reef** (0°38'S., 100°05'E.) and then between Pulau Anso and Pulau Tangah to the anchorage.

To pass outside the **Batik Reefs** (0°32'S., 99°56'E.) bring **Pulau Ujung** (0°25'S., 99°53'E.) bearing N, astern, and keep it so for 9 miles, leaving **Ingaris Reef** (0°29'S., 99°51'E.) about 2 miles to starboard, and Batik Kechil about the same distance to port; when Pulau Karsik bears 105° it may be steered for on that bearing.

Vessels bound for Padang to the SE and not entering Pariaman Road, about 4 miles SW of Pariaman, may steer to pass about 1 mile E of **Pulau Air** (0°53'S., 100°12'E.) and the shoal SE. Pass 1 mile E of **Sipakal** (0°56'S., 100°15'E.), there

being no known danger inshore of this except the reef lying more than 1 mile SW of **Pulau Sao** (0°52'S., 100°17'E.).

There is a channel on either side of Pulau Sao, but that to the W is the best and most direct; care must be taken to avoid the shoal already mentioned.

When S of that islet a direct course may be steered for **Apenberg** (0°58'S., 100°20'E.); should unfavorable weather be present, steer for the anchorage under **Pisang** (1°00'S., 100°20'E.), where vessels are sheltered from NW winds, or for Teluk Bayur within Pisang, where there is complete shelter.

Approaching Padang from the W and after passing well clear of **Stort Reef** (0°55'S., 99°59'E.), pass close S of **Pulau Pandan** (0°57'S., 100°08'E.) and then between **Siboentar** (0°57'S., 100°13'E.) and **Pulau Bindalang** (0°59'S., 100°12'E.). Steer for a position close S of **Pisang** (1°00'S., 100°20'E.) from where course may be shaped into the anchorage.

If bound for Teluk Bayur, follow the directions for Pisang anchorage above to a position 2 miles W of Pisang and from it steer to pass W of **Marlbro Reef Lighthouse** (1°02'S., 100°21'E.) and then between it and **Ujung Batumandi** (1°03'S., 100°22'E.).

A vessel from Pariaman bound for Teluk Bayur may take the inshore route, pass W of Pisang, then as directed above.

Approaching Padang from the S, a vessel should make **Pulau Nyamuk Light** (1°16'S., 100°18'E.), a low islet 9.1 to 15.2m high. The island should not be brought to bear W of 343°, nor approached within 1 mile, as reefs extend about 0.5 mile from it.

Having passed Pulau Nyamuk at about 1 mile distant, on either side, course should be shaped to pass the same distance W of **Bintanggor** (1°09'S., 100°19'E.) and **Sirandah** (1°07'S., 100°20'E.).

There is also a narrow and safe passage E of Bintanggor and Sirandah, with depths of 37 to 55m and which is generally considered the best.

Having passed Sirandah by either channel, it should then be brought to bear 180° astern, until Marlbro light bears 090°.

Then set course directly for the anchorage S of Pulau Pisang. This will lead between the two shoals NW of Sinjaroe.

If bound to Teluk Bayur a direct course for the outer end of the breakwater may be steered with the whole of Pulau Marak well open E of Sirandah astern, bearing 194° which leads between Marlbro Shoal and Ujung Batumandi, and W of the dangerous wreck lying S of the 7.3m patch on the E side of the fairway.

Anchorage.—The anchorage in **Airbangis Road** (0°10'N., 99°20'E.) is E of Pulau Panjang, as close to the fringing reef as convenient, in depths of 11 to 12.8m, soft mud, about 4 miles from the village of Airbangis.

The best anchorage in **Tiku Road** (0°25'S., 99°55'E.) is in depths of 12.8 to 14.6m E of Tangah, with the S point of the island bearing 278° and the W side of **Tapi Peninsula** (0°24'S., 99°55'E.) bearing 020°.

Small vessels may anchor in 5.5m, sheltered from NW winds, E of the reef extending about 0.3 mile S of Tapi Peninsula; the reef always breaks.

Vessels can anchor in **Pariaman Road** (0°38'S., 100°06'E.) to the E of Oedjoeng or Tangah in 5.5 to 12.8m, mud bottom, sheltered from NW and W winds.

Anchorage in the S approach to Padang Road may be taken within the islets of Anggo, Pagang, Bintanggor, Sirondjong, Sikowai and Sirandah that between 1.25 to 4 miles N of **Pulau Marak** (1°12'S., 100°18'E.), in depths of 18.3 to 37m, sheltered from NW and W winds.

Anchorage in **Padang Road** (0°59'S., 100°18'E.) to the E of Pisang, affords fair shelter in 9.1 to 11m soft blue mud, with the extremities of the island bearing about 236° and 240°.

Caution.—An ammunition dumping ground is centered in a position about 6.7 miles SE of **Bando Islet** (0°46'S., 99°59'E.).

An area previously dangerous due to mines, but now considered safe for surface navigation, lies in the approaches to Teluk Bayur.

Should a vessel wish to avoid this area, she is advised to make for **Pulau Nyamuk** (1°16'S., 100°18'E.) then proceed N, passing W of Pulau Marak, then through the passage between **Bintanggor** (1°09'S., 100°19'E.) and Pagang, and Sirandah and **Sikowai** (1°08'S., 100°21'E.), then steer for **Marlbro Light** (1°02'S., 100°21'E.) and proceed as for Teluk Bayur.

Teluk Bayur (Emmahaven) (1°00'S., 100°22'E.)

World Port Index No. 50450

7.10 This bay is located about 3 miles S of Padang. At its head is the town of Teluk Bayur protected by a breakwater extending for a distance of 0.5 mile in a SE direction from the W shore, and enclosing an area of about 0.5 mile.

Tides—Currents.—Tidal currents set NW and SE at a maximum rate of 1 knot. The tidal range at neaps is 0.3m while the range at springs is 0.9m.

During the NW monsoon there is often a considerable swell in the anchorage.

Depths—Limitations.—Vessels up to 22,000 dwt, with a maximum length of 180m, can be accommodated.

Wharf	Length	Depth
1st Wharf	108m	10.0m
2nd Wharf	108m	10.0m
3rd Wharf	96m	10.0m
No. 1 Quay	150m	10.0m
No. 2 Quay	150m	10.0m
Coal Terminal	225m	7.5m
Cement Terminal 1	150m	9.0m
Cement Terminal 2	150m	10.0m
Special Quay	98.5m	10.0m

The explosives pier is situated on the side of the breakwater and has a least depth of 6.3m alongside.

The petroleum jetty, also situated on the NE side of the breakwater, is 183m NW of the explosives pier, and has a length of 9m with an alongside depth of 5.8m.

On **Karsik Reef** (Karang Terlana) (1°00'S., 100°22'E.), which occupies the center of the harbor, a breakwater about 0.1 mile in length, built parallel to and about 0.2 mile from the main wharves, shelters the space within from all winds.

However, that portion of the bay E of the breakwater is open to S winds. Within this enclosed area, the depths are about 7.8 to 8.7m.

Marlbro (1°02'S., 100°21'E.), a submerged rock marked by a light and a racon, has a depth of 1.2m and lies about 2 miles W of Ujung Batumandi.

Pasir Gedang (1°01'S., 100°21'E.), marked by a beacon, lies about 1 mile NNE of Marlbro; on its E side is a sand cay on which coconut trees have been planted.

Aspect.—The limits for the roadstead for Teluk Bayur are a line joining the S part of the bay and **Pisang** (1°00'S., 100°20'E.), the meridian through the W point of Pisang, and a line 045° to 25° through **Whale Rock** (0°58'S., 100°20'E.).

To the N of **Ujung Batumandi** (Oedjoeng Sungei Bramei) (1°03'S., 100°22'E.), conspicuous by a lighthouse, the lightkeeper's house and a signal staff, a high ridge of hills forms the E shore of the bay, with Tompat, the village of Baramas, and Taloe Niboeng near the coast.

When the bay opens up, Teluk Bayur will appear on a background entirely closed by a high, overgrown ridge of hills.



Ujung Batumandi Light

Lights are shown from the head of the main breakwater and from each end of the breakwater on Karsik Reef.

There are several mooring buoys in the harbor and off the wharves to assist vessels in securing alongside and to keep vessels off the wharves when a swell is running in the harbor.

Pilotage.—Pilotage in Teluk Bayur is compulsory. Pilots board 0.5 mile S of the end of the main breakwater.

Vessels approaching the harbor can communicate by flag or morse code with the harbor office and should keep the pilot signal if necessary, the quarantine signal, displayed until answered by the harbor office.

Pilotage is available 24 hours and should be requested 6 hours in advance. The vessel's ETA should be sent 48 and 24 hours in advance.

The harbormaster also is reported to perform the duties of harbor pilot.

By day the pilot boat flies a blue flag with a white star; at night the pilot boat carries a white light above a red light.

The signal for a pilot is in accordance with the International Code of Signals; such signal must be shown until the pilot is aboard or until an answering signal has been made.

A fine is assessed on vessels engaging a pilot and not taking him at the stated time.

Regulations.—The usual quarantine regulations for vessels from infectious ports, and for the control of the harbor, are in force in all harbors in the Republic of Indonesia.

Anchorage.—Anchorage can be taken inside Teluk Bayur roadstead limits as near the breakwater as safe navigation permits.

Anchoring is reported to be prohibited in the area best seen on the area chart.

Padang to Mokko Mokko

7.11 Teluk Bungus (Boengoes Baai) (Bungus Bay) (1°03'S., 100°23'E.), in which there are several villages, is separated from Teluk Bayur by Ujung Batumandi. A small pier and landing place lie about 0.2 mile E of the signal staff standing on the point. Karsik is a small islet lying near the middle of the N arm of the bay.

Sungi Pisang Bay (1°07'S., 100°22'E.), lying close S of Teluk Bungus, is about 1 mile across and open to W winds.

Two rocks lie in the entrance, with depths of 1.8 and 3.7m; abreast the rocks, close to the N shore, there is a narrow passage, with depths of 27 and 31m, decreasing to 12.8 and 16.5m. There is also a narrow passage between the S point of the bay and Sikowai Islet, lying off the bay's entrance.

Sungi Pinang Bay (1°10'S., 100°22'E.) lies S of Sungi Pisang Bay, and is free from off-lying dangers.

Taroesan Bay (Tarusan Bay) (1°13'S., 100°25'E.), fronted by the island of **Tjoebadak** (Chubadak) (1°13'S., 100°23'E.), is about 5 miles in extent and safe, with general depths of 12.8 to 29m, over soft blue clay.

There are two passages into the bay on either side of Tjoebadak, **South Ngalo Strait** (1°11'S., 100°23'E.) to the N and **Sirondjong Strait** (1°14'S., 100°24'E.) to the S.

Telok Dalam indents the N coast of Tjoebadak for a distance of about 0.7 mile and has general depths of 27m.

In the entrance is the islet of Tradjoe, W of which is the wider and deeper passage into the inlet.

Tanjung Taloe Lambue (Tanjung Taluk Lambu) (Ujung Taluk Lambu) (1°16'S., 100°24'E.), the extremity of a prominent peninsula partly forming Taroesan Bay, lies about 3 miles S of the entrance to that bay.

Tjingkoek Bay (Chingkuk Bay) (1°19'S., 100°32'E.) lies about 11 miles SE of Tanjung Taloe Lambue and is the N most of four bays indenting the coast within a distance of about 8 miles to the S of that bay.

7.12 Painan Bay (1°22'S., 100°34'E.), the next bay SSE, has fairway depths of 12.8 to 18.3m and 7.3 to 12.8m in the bay.

Batoeng Bay (Teluk Batung) (1°23'S., 100°35'E.) is the next bay SSE.

Batoe Dandang (1°22'S., 100°33'E.), a reef with above-water rocks, extends off the N point of Batoeng Bay.

Soengeo Boeng in Bay (1°26'S., 100°34'E.), the S most of the four bays, is similar to Batoeng Bay.

Oedjoeng Taloe Kasai (Ujung Taluk Kasai) (1°27'S., 100°33'E.), 110m high, is a prominent point forming the SW end of the bay.

Batang Kapas Bay (1°30'S., 100°37'E.), which affords good anchorage, lies about 5 miles SE of Oedjoeng Taloe Kasai.

Oedjoeng Radja (Ujung Raja) (1°36'S., 100°38'E.) lies about 7 miles S of Batang Kapas Bay; it has a hill 124m high immediately over it with **Batu Mandamai** (1°37'S., 100°38'E.), 80m high, over the coast about 1 mile SSE.

The coast between Oedjoeng Radja and Tanjung Inderapura, about 35 miles SSE, forms a bight in which the Air Indrapoera and some minor streams discharge.

7.13 Air Indrapoera (2°00'S., 100°52'E.), the most important river S of Padang, is situated about 10 miles N of the point of the same name. There is generally a heavy surf at the entrance, but small native craft can enter during the greater part of the year except at LW. It takes a very tortuous course to the town of **Inderapura** (Indrapoera) (2°04'S., 100°56'E.) and has its rise near **Rasa** (2°00'S., 101°00'E.), 270m high.

Tanjung Inderapura (Oedjoeng Tandjoeng) (Ujung Tanjung) (2°09'S., 100°49'E.) is low and its extremity covered with trees; it is steep-to.

Numerous islets and reefs, for which the chart is the best reference, lie off the coast between **Tanjung Taloe Lambue** (1°16'S., 100°24'E.) and Mokko Mokko, about 90 miles SE.

Kurinci Peak (Gunung Kerinci) (Indrapura Peak) (1°41'S., 101°15'E.), which rises to a height of 3,805m about 27 miles E of Oedjoeng Radja, is the highest in Sumatera.

Gunung Patah Sambilan (1°41'S., 101°08'E.) rises to a height of 2,591m about 8 miles W of Kurinci Peak.

A light is shown from the middle of **Pulau Katangkatang** (Katang Katang) (1°52'S., 100°34'E.) which lies about 18 miles SSW of Oedjoeng Radja.

The entrance to Air Hadji, which is not easily made out, may be identified by **Lenggok** (1°52'S., 100°53'E.), a remarkable sugar-loaf hill covered with trees, which rises to a height of 329m about 5.2 miles NNE of the river entrance.

Batu Tiga (1°36'S., 100°40'E.), 261m high, and Sugirik, 271m high, rise about 2 miles within Oedjoeng Radja.

Djalamoe (Jalamu) (1°43'S., 100°46'E.), 105m high, rises about 8 miles to the SE.

Baringit (1°43'S., 100°56'E.), 1,387m high, rises about 11 miles E of Djalamoe.

Pandan Gadang (1°54'S., 101°08'E.), 1,847m high, rises about 12 miles SE of Baringit; these peaks, with others of less height back the coast some 17 miles inland and will be of much assistance in fixing the position of a vessel when navigating in this locality.

Anchorage.—There are no ports or anchorages that are safe during the W monsoon period between Tanjung Inderapura and **Vlakke Hoek** (5°55'S., 104°33'E.), at the entrance to Selat Sunda. Landing is always dangerous because of heavy surf.

There is safe anchorage in **Teluk Bungus** (1°03'S., 100°23'E.), with depths of 26 to 27m in the entrance and 11 to 18.3m farther in.

Anchorage can also be taken in the E side of the bay in the N bight in 16.5m, mud, and in the S bight, in 18.3 to 22m, open to W winds.

Anchorage in **Sungi Pinang Bay** (1°10'S., 100°22'E.) shelters vessels from almost every wind, and is only open to the SSW; anchorage may be found in 46m, mud bottom, in the NW part of the bay, SW of the charted rocks.

Directions.—The directions for approaching Padang from the S apply here to **Teluk Bungus** (1°03'S., 100°23'E.). When in the entrance, bear toward the N side to avoid the shoals off Karsik, and anchor between it and the point, or nearer to the head, where there is good shelter. Shallow water extends off the point and island that form the NE side of this anchorage.

Approaching **Tjingkoek Bay** (1°19'S., 100°32'E.) from the N, vessels may pass on either side of **Pulau Nyamuk** (1°16'S., 100°18'E.), then steer for **Koembang** (Kumbang) (1°19'S., 100°26'E.) to avoid the shoals SE of Koembang.

Between Koembang and **Aoer Gedang** (Aur Gedang) (1°23'S., 100°29'E.), the depths are 29 to 46m; and from between these islands steer to pass S of the **Simangke Group** (1°21'S., 100°31'E.) and then into the bay.

The directions for approaching **Painan Bay** (1°22'S., 100°34'E.) are the same as those for Tjingkoek Bay given above.

7.14 Tjingkoek Bay (1°19'S., 100°32'E.) has regular depths and good anchorage near Salida village, in depths of 7.3 to 11m at its NW part.

Anchorage may be obtained in **Painan Bay** (1°22'S., 100°34'E.) in a depth of 146m, good holding ground; small craft can go nearer to the NE corner of the bay in depths of 5.5 to 9.1m, off the village, where there is better shelter from NW winds.

Batoeng Bay (1°23'S., 100°35'E.) affords good anchorage in moderate depths, open to W winds.

Batang Kapas Bay (1°30'S., 100°37'E.) affords good anchorage in depths of 12.8 to 18.3m, but is open to W winds.

Small vessels can anchor in 7.3m W of the mouth of **Air Indrapoera** (2°00'S., 100°52'E.) with the peak of **Lenggok** (1°52'S., 100°53'E.) bearing 017°.

Large vessels should not approach to within a depth of 14.6m or within 2 miles of the shore. Vessels should only anchor off this coast if necessary, as it is unsafe in W winds.

Anchorage may be obtained off Air Indrapoera in a depth of 7.3m, with the S point of the river mouth bearing 097°. A mooring buoy is located in the roadstead of the river.

Caution.—The numerous off-lying islets, rocks, and reefs lying between **Tanjung Taloe** **Lamboe** (1°16'S., 100°24'E.) and Tanjung Inderapura, about 59 miles SSE, are steep-to and should be given a wide berth.

Vessels should pass well W of a line joining **Pulau Nyamuk** (1°16'S., 100°18'E.) and **Panjoe** (Panyu) (1°30'S., 100°26'E.), lying about 16 miles SE. Proceeding S from abreast **Oedjoeng Radja** (1°36'S., 100°38'E.) it will be prudent, if coasting, to keep 4 to 5 miles offshore, in order to avoid **Gosong Soemedang** (Sumedang) (1°50'S., 100°46'E.), an above-water rock.

In the daytime, with a good lookout aloft, most of the dangers will be visible; at night, a vessel should keep well outside all these islets.

Mokko Mokko to Ujung Teluk Punggur

7.15 Mokko Mokko (2°34'S., 101°07'E.), the only settlement not visible from seaward on this coast, is situated about 31 miles SE of Ujung Tanjung.

Pasar Bantal (2°45'S., 101°20'E.), about 17 miles SE of Mokko Mokko, may be identified by two white rocks a little N of it; the village stands on the S side of the entrance.

Pasar Ipuh (Pasar Ipu) (3°01'S., 101°29'E.), about 18 miles SSE of Pasar Bantal, may be identified by three red cliffs to the S and three green hills near the sea.

Ketahun (Ketaun) (3°23'S., 101°49'E.), the buildings of which have conspicuous roofs, is situated about 30 miles SE of Pasar Ipuh.

Sarang Alang (2°33'S., 100°59'E.), about 0.4 mile long and 183m wide, has a least depth of 5.5m and lies about 6 miles W of the mouth of **Slagan River** (2°33'S., 101°05'E.). With a heavy sea, the sea breaks on it.

7.16 Swallowfield Rock (2°59'S., 101°27'E.), with a depth of 4.6m, lies about 2.7 miles NW of Air Ipuh. A 3.7m patch lies about 2 miles SW of Air Ipuh, and a rock, with a depth of 5.5m, lies about 0.7 mile S of the 3.7m patch.

Northwestward of Pasar Ipuh there are no reefs under the coast, but between Pasar Ipuh and **Bengkulu** (3°47'S., 102°15'E.) are numerous reefs and shoals, mostly off the rivers.

In a swell the 7.3m and 9.1m patches are marked by rollers, and shoals with 5.5 or less always break.

The coast S of Pasar Ipuh is fronted by a coral bank which stretches out 4 or 5 miles, with depths of 11 to 18.3m on its outer edge; it extends from Pasar Ipuh to Ketahun, a distance of about 30 miles, and should not be approached in depths of less than 18.3m as it is steep-to.

The coast between Ketahun and Bengkulu, a distance of about 36 miles, is safe to approach in depths of greater than 22m.

Coming from the N to Mokko Mokko, the high trees on the high S point of **Plokang Bay** (2°33'S., 101°05'E.) form the second easily distinguishable mark after Tanjung Inderapura, 32 miles to the N.

Talang (2°06'S., 101°15'E.) rises to 1,377m about 27 miles E of Tanjung Inderapura.

Raya (2°13'S., 101°26'E.), 2,550m high and conspicuous, rises SE of **Talang**.

Pandan (2°44'S., 101°51'E.), 2,168m high, and **Seblat** (2°53'S., 102°09'E.), 2,383m high, lie farther to the SE.

Kaba (3°30'S., 102°35'E.), 1,952m high, lies NE of Bengkulu.

Gedang Ulu Lais (3°15'S., 102°14'E.) and **Ulu Palik** (3°24'S., 102°20'E.), 2,130m and 2,500m high, respectively, rise to the N of Bengkulu.

Anchorage.—Anchorage may be obtained off Mokko Mokko in 18.3m, over soft ground, about 3 miles WSW of **Slagan River** (2°33'S., 101°05'E.).

Small vessels may anchor nearer the shore in a depth of about 9.1m. The native boats must be employed in landing on account of the surf. The coast in the neighborhood is a sandy beach onto which a heavy swell is generally setting, as is usually the case on this coast S of the Equator.

There is an anchorage off the mouth of **Kali Aer Dikit** (2°41'S., 101°14'E.) in depths of 14.6 to 18.3m.

The best anchorage in the road off **Pasar Bantal** (2°45'S., 101°20'E.) is in depths of 14.6 to 16.5m, over ooze and sandy bottom, with the white rocks just N of Pasar Bantal bearing 024° and the river entrance 045°.

Large vessels may anchor off **Pasar Ipuh** (3°01'S., 101°29'E.) in depths of 16.5 to 18.3m, with the central of three red cliffs near the sea bearing 057°; here the roadstead is tolerably clear, while farther in the bottom is foul.

Bengkulu (Benkulen) (3°47'S., 102°15'E.)

World Port Index No. 50440

7.17 Bengkulu is the capital of the Bengkulu district and the headquarters of an administrator. Bengkulu river mouth (3°46'S., 102°16'E.) discharges into the bay about 2 miles NE of the town.

Bengkulu Road (3°47'S., 102°14'E.) may be considered as lying between **Ujung Coko** (Ujung Parit) (3°43'S., 102°14'E.), 4.5 miles N of Bengkulu and **Ujung Teluk Punggur** (3°55'S., 102°16'E.), about 8 miles S of Bengkulu, forming a large bay on either side of the town.

The inner road, with depths of 7.3 to 11m, lies NW of Bengkulu and within **Pata Sambilan Reef** (3°47'S., 102°14'E.).

The NW winds which prevail from October to April, when strong, cause a heavy swell and breakers in the roadstead; during the SE monsoon the inner road is perfectly safe.

Pulo Tikus (3°50'S., 102°11'E.) lies about 5 miles SW of Bengkulu, and is surrounded by a coral reef about 2 miles in extent in a NW and SE direction. It is partly dry at LW, and affording shelter from SW winds.

Pulo Tikus Basin, an excellent basin on the NE side of the reef, has depths of 11 to 14.6m, over soft mud, and 4.6 to 5.5m at its upper end. The passage is close to the edge of the reef on the W side; several detached patches lie off the E side, with 12.8 to 14.6m of water close-to.

Depths—Limitations.—The boat harbor is protected by two breakwaters; the W breakwater is 0.2 mile long while the E breakwater is only 183m long. The depth in the channel to

the basin is 2m. Ocean-going vessels discharge cargo into lighters in the roads about 3 miles offshore.

A bank with a depth of 18.3m lies about 18 miles W of Ujung Coko.

Pata Sambilan (3°47'S., 102°14'E.), two reefs which dry in parts at LW, lie from 0.5 to 1.5 miles off Bengkulu. They do not always break, but as they are liable to do so suddenly, boats should not attempt to cross them.

A 6.9m shoal lies about 0.5 mile NNE of the N edge of Pata Sambilan. A buoy is moored about 0.7 mile NW of the boat harbor and marks a 0.9m shoal.

Numerous other reefs and shoals, which can best be seen on the chart, lie in the approaches to Bengkulu. These reefs are avoided by keeping in depths above 20m.

A shoal, with a depth of 10.1m, lies about 2 miles NW of Ujung Teluk Punggur.

Aspect.—To the NE of Bengkulu, the land is high and rugged; one of the hills, **Bungkuk** (Suikerbrood) (3°35'S., 102°25'E.), 1,034m high, is a conspicuous mark in some directions from seaward and rises about 16 miles from Bengkulu. The roadstead will be easily made out by the clump of coconut trees on Pulo Tikus, which are visible from 12 to 15 miles. The mouth of the river is not easily recognized, with a fort and a few roofs of houses being the only objects visible from any distance seaward.

Anchorage.—The usual anchorage in the outer roadstead of Bengkulu is in 22 to 24m, about 2 miles NNE of Pulo Tikus.

The bottom is generally rocky and in some places reported to be foul. During S winds vessels may anchor in 24m under the shelter of Tikus Reef, in a mud bottom.

The best anchorage in the inner roadstead is just outside the 0.9m patch lying about 0.2 mile NW of the boat harbor, in a depth of 8.2m, mud and sand, good holding ground.

During N winds, vessels that do not go into Pulo Tikus Basin should anchor within 1 mile E of Pulo Tikus lighthouse, in about 27m, where the sea will be partly broken by the reef.

Loading and discharging cargo may be done in favorable weather in this position.

Directions.—The approach to the harbor of Bengkulu from N is between the buoys already mentioned above; the S entrance, approach, pass W of the **Pata Sambilan** (3°47'S., 102°14'E.) and the reefs extending from the shore W of the town and then to the anchorage.

Approaching Bengkulu Road from the N, bring Pulo Tikus to bear S of 125° to avoid the reefs W of Tikus Reef. Bungkuk bearing 056°, or E of that bearing, until Pulo Tikus lighthouse bears 135°, leads N of them, where course may be taken for the anchorage in the road or for Pulo Tikus anchorage.

Coming from the W, the trees on Pulo Tikus will be seen before Bungkuk, which is much more conspicuous on a near approach.

Approaching the road from the S, Pulo Tikus should not be brought to bear to the W of 000° until within 3 miles of it, which will lead W of **Lebar Reef** (3°56'S., 102°12'E.), then steer 022° for the road.

From abreast Pulo Tikus, if bound for the inner road, haul to the N, passing W of the 6.9m shoal lying about 0.2 mile NNE of the N edge of the N of Pata Simbilan.

There is a channel 3 miles wide within Lebar Reef, with general depths of 27m. Vessels using this channel should keep

within 2 miles of **Ujung Teluk Punggur** (3°55'S., 102°16'E.) until it bears 090°, and may then steer for Pulo Tikus Anchorage, and then for the inner road; Lebar Reef may be seen by the overfalls on its edges.

Caution.—A dangerous wreck lies sunk in a position about 0.4 mile NNW of the head of the W mole at Bengkulu. A buoy is moored on the SW side of this wreck.

7.18 Pulau Bay (Teluk Ujung Pulau) (3°55'S., 102°17'E.) is situated 8 miles SE of Bengkulu. The bay is completely separated from the sea by a tongue of land, making it an excellent anchorage for shipping.

Depths—Limitations.—The middle of the harbor has a dredged depth of 10m. The dredged channel opening out to the sea has a depth of 10m, with its entrance protected by two breakwaters. Lights are shown from the end of each breakwater.

The port can accommodate vessels up to 15,000 dwt, with a maximum length of 150m and a maximum draft of 9m.

The ocean-going pier, which is 165m long, has 10m alongside and can accommodate a maximum draft of 9m. The inter-island pier, which is 124m long, has 4m of water alongside.

A new road is being completed to allow easy access to the port for the development of the province's resources which include various ores, timber, coal, and rubber.

Ujung Teluk Punggur to Tanjung Balimbingpamancasa

7.19 Ujung Genting (Tanjong Genting) (3°58'S., 102°17'E.), a round bluff headland, covered with high trees, discernible in Bengkulu Road, lies about 3 miles SSE of Ujung Teluk Punggur.

From Ujung Genting the coast of Sumatera extends in a SE direction for a distance of 183 miles to **Vlakke Hoek** (5°55'S., 104°33'E.), at the N side of the entrance to Selat Sunda.

Throughout its extent it is almost entirely without shelter, and being beaten by heavy surf, the few frequented places are dangerous for landing. It is in most places bold and safe to approach; the land is mountainous a short distance inland.

Pasaralas (4°19'S., 102°45'E.) (World Port Index No. 50430), lying about 35 miles SE of Ujung Genting, is a small pepper port.

Mana (Tanjung Manna) (4°29'S., 102°54'E.), lying about 14 miles SE of Pasaralas and marked by a light, projects considerably and may be identified by a hill covered with coconut palms. The coastal reef extends about 1 mile S of the point. A stranded wreck (PA) is charted close S of the point.

The town of Mana (Manna) lies in the bight to the NE of the point. The dwellings are conspicuous. A cascade falls perpendicularly from steep cliffs which line the shore near Mana, but landing should not be attempted.

7.20 Pasarpinoh (4°24'S., 102°50'E.) (World Port Index No. 50420), another pepper port, lies about 6 miles NW of Tanjung Mana and **Padang Guchi** (4°35'S., 103°08'E.) (World Port Index No. 50410) lies about 15 miles SE.

Teluk Sambat (4°50'S., 103°22'E.), entered between Tanjung Bandar and Tanjung Linau, is about 5 miles wide. On

its SE side is Linau village, situated on the N side of a bight 0.5 mile wide, where small craft find shelter from S winds.

The coast for about 30 miles SE of Tanjung Linau is steep-to; reefs lie off the coast in places on this stretch.

Teluk Pugung (5°00'S., 103°42'E.), 18 miles SE of Tanjung Linau, is deep; the 200m curve penetrates deeply into the bay.

Pulau Pisang (5°07'S., 103°51'E.), quartz rock, 41m high and densely overgrown with coconut palms, is almost 1 mile in extent, and lies about 11 miles SE of Teluk Pugung and 1 mile offshore; the intermediate coast is steep-to. It is surrounded by a narrow coastal reef with deep water about 0.2 mile off, with the exception of the NE side, where it is connected to the mainland by a ledge with a greatest depth of 73m.

On this ledge and to the N of the island, are patches with depths from 1.8 to 5.5m.

7.21 Teluk Kroe (5°09'S., 103°54'E.) (World Port Index No. 50400) lies about 3 miles SE of Pulau Pisang; at the head of the bay there is about 55m less than 0.5 mile offshore in places. The town of Kroe is situated on the bank of a small river which is entered close E of **Tanjung Salobu** (5°11'S., 103°56'E.), the S point of the road, which is visible for some distance from the offing.

Karang Jati, with a least depth of 2.7m, lies 0.8 mile NNW of Tanjung Salobu and about 0.4 mile offshore.

Foul ground extends from Tanjung Salobu for a distance of 0.2 mile, with deep water close-to. A buoy is charted on the W edge of Karang Jati. There is a boat basin protected by two moles at Kroe.

Labuan Tapokan (5°16'S., 103°58'E.) indents the coast about 9 miles SE of Teluk Kroe. A reef with a least depth of 4.1m, coral and sand, lies in the middle of the bay; the reef always breaks.

Labuan Jambu (5°20'S., 104°01'E.) lies immediately SSE of Labuan Tapokan and is completely clear of dangers.

Labuan Siging (5°31'S., 104°12'E.) affords good shelter against SE and S swell and landing can most always be effected immediately N of **Ujung Siging** (5°32'S., 104°13'E.), the S point of the bay.

Off the bay are patches of 8.2m and 18.3m, with a sand bottom. A distinct rocky shoal of 5.4m extends S from Ujung Siging. A reef extends about 0.3 mile offshore from Ujung Siging. There is always a heavy swell at this shoal.

There are also occasionally heavy swells on the shoal patches W of the bay.

Teluk Bengkuntat (5°37'S., 104°18'E.) lies about 7 miles SE of Ujung Siging.

7.22 Ujung Cukubatuberagam (5°37'S., 104°18'E.), the S extremity of the bay, is fringed by a coral reef; a 3.6m patch lies 0.5 mile N of the point and a shoal, upon which there is a rock with a depth of 0.6m, lies 1.5 miles NNW of the point.

The coast from Ujung Cukubatuberagam trends about 23 miles SE to **Tanjung Balimbingpamancasa** (Vlakke Hoek) (5°55'S., 104°33'E.), the S point of Teluk Balimbing and the NW entrance point of Selat Sunda; the coast is generally low and densely overgrown, but inland the country is mountainous.

Teluk Balimbing (5°54'S., 104°34'E.) indents the coast just N of Tanjung Balimbingpamancasa. The village of Balimbing is situated close E of the SW entrance point of Teluk

Balimbing. To the N of this same point the 10m curve is about 0.5 mile offshore and the depths shoal quickly to 5.4m. The depths in the bay shoal gradually.

Pulau Batu Kecil (5°54'S., 104°27'E.) lies about 7 miles WNW of Tanjung Balimbingpamancasa; it is low, wooded, about 0.7 mile in extent, and surrounded by a reef. A shoal bank extends NW and SE of the island.

7.23 Regular depths over a sandy bottom are found between **Bengkulu** (3°47'S., 102°15'E.) and Mana, about 57 miles SE. Farther to the S the coast becomes more steep, moderate depths extending out only a short distance, until Pulau Batu Kecil is approached where they extend 8 miles from the coast of Sumatera.

A few shoals, which can best be seen on the chart, lie off the coast between **Pasaralas** (4°19'S., 102°45'E.) and Mana, about 14 miles SE.

A shoal, about 2 miles in extent and with a least depth of 5.9, lies 1.5 miles SW of **Ujung Cukubatuberagam** (5°37'S., 104°18'E.), with a 10.1m patch about 1.7 miles S of the shoal.

Two patches, with depths of 4.1 and 5.4m, lie 3 and 1.75 miles NNW, respectively, of **Tanjung Balimbingpamancasa** (5°55'S., 104°33'E.); other shoal patches may exist in the vicinity.

Off the coast W of **Langgar Peak** (5°49'S., 104°33'E.) are several patches with depths of 5.9 to 8.7m; the outer patch, with a least depth of 7.3m, lies about 2 miles offshore and 5 miles W of the peak.

Gunung Dempo (4°01'S., 103°07'E.) rises to a height of 3,159m about 31 miles NNE of Tanjung Mana.

Dingin (3°59'S., 102°56'E.) rises to 2,020m about 11 miles WNW of Gunung Dempo.

These two peaks are apparently useful marks for identifying the locality.

Pandan (4°34'S., 103°31'E.), 1,811m high, rises about 16 miles NNE of Teluk Sambat.

Pugung (4°59'S., 103°51'E.) rises to a height of 1,964m, about 8 miles E of Teluk Pugung, there are many other high peaks in the vicinity.

Tanggamus (Keizerspiek) (5°26'S., 104°40'E.), 2,102m high, rises about 24 miles ENE of Teluk Bengkuntat.

A light is shown on **Tanjung Bandar** (4°49'S., 103°20'E.).

A light is normally shown from the highest point on the SE side of **Pulau Pisang** (5°07'S., 103°51'E.).

A light is normally shown on **Tanjung Salobu** (5°11'S., 103°56'E.).

7.24 Langgar (5°49'S., 104°33'E.), a conspicuous peak, rises to a height of 158m about 29 miles NNE of Teluk Balimbing.

A light, from which a racon transmits, is shown from a white dwelling on Tanjung Balimbingpamancasa.

A light is shown from a lighthouse on the NW part of Ujung Walor.

Directions.—In approaching Teluk Kroe the high and conspicuous mountain, Pugung, which rises about 9 miles N of **Pulau Pisang** (5°07'S., 103°51'E.), may be discerned a considerable distance from the offing.

Vessels should approach the anchorage under Pulau Pisang from the S; there appear to be no dangers to avoid excepting the reef extending a short distance from the island.

Small craft may enter by the N channel by keeping at about 0.2 mile distant from the island shore.

In approaching the town of Kroe from the S, the houses should be kept open of Tanjung Salobu to avoid the reef off **Ujung Walor** (5°14'S., 103°54'E.).

Anchorage.—The best anchorage off **Pasaralas** (4°19'S., 102°45'E.), a small pepper port, is in 22m, mud. In lesser depths the ground is foul and rocky.

Anchorage may be taken in the N part of Teluk Sambat, W of **Aer Sambat** (4°48'S., 103°23'E.) off the village of Bintuhan (Bandar) where there is good shelter from NW and W winds, in 14.6 to 18.3m, sand and mud bottom.

Anchorage can also be taken off **Tanjung Linau** (4°52'S., 103°24'E.).

Anchorage may be taken in **Teluk Pugung** (5°00'S., 103°42'E.) in 18.3m off the village of Penengahan, sheltered from the swell; however, landing is only practicable during good weather.

Anchorage may be taken in Teluk Kroe, between **Pulau Pisang** (5°07'S., 103°51'E.) and the coast of Sumatera, sheltered from NW and W winds in about 14.6 to 31m, sand, E of the island.

Large vessels may anchor about 0.2 mile N of the lighthouse on **Tanjung Salobu** (5°11'S., 103°56'E.) in about 11.9m, hard sand bottom. It is safe in the SE monsoon, being well sheltered from these winds by the reef off the S of the bay; but during the W monsoon there is but little shelter in any of these bays, and craft must be prepared to leave at any time.

Anchorage may be obtained in **Labuan Topokan** (5°16'S., 103°58'E.), off the village of Pager Dalem, where landing can always be effected except in strong NW winds.

The anchorage in **Labuan Jambu** (5°20'S., 104°01'E.) is immediately off the small river of Jambu, but no shelter is afforded against SE swell.

Labuan Siging (5°31'S., 104°12'E.) affords anchorage in 9.1 to 11m, over sand, with Ujung Siging bearing about 170°.

Anchorage may be obtained in **Teluk Bengkumat** (5°37'S., 104°18'E.) and is really the only good anchorage between **Ujung Walor** (5°14'S., 103°54'E.) and Tanjung Balimbingpamancasa, about 57 miles SE.

Anchorage, though completely exposed to NW winds, may be taken in Teluk Balimbing in 7.2m, sand, with Tanjung Balimbingpamancasa light structure bearing 192° and the entrance of a river lying about 2 miles NE of the light structure, bearing 084°.

Anchorage is available off a village on the NE side of Pulau Beta Kecil, in depths of 14.6 to 22m.

Caution.—Off **Tanjung Mana** (4°29'S., 102°54'E.) during the E monsoon period, heavy rollers get up in 7.3m, and a break may occur in depths of 5.5m after the sea breeze sets in, thus preventing any communication with the shore. It is therefore not a desirable anchorage.

Selat Siberut to Selat Sunda

7.25 The chain of islands that are parallel to the W coast of Sumatera between Selat Siberut and Selat Sunda, lie off the

coast at a distance of about 60 miles; they are for the most part unsurveyed.

Selat Siberut (0°50'S., 98°45'E.), between Pulau Bojo and Pulau Siberut, is about 21 miles wide. This strait, together with its dangers therein, is described in paragraph 6.29.

Kepulaun Mentawai (Mentawai Islands) (2°00'S., 99°30'E.) consists of four large inhabited islands, namely Siberut, Sipura, Pagai Utara, and Pagai Selatan, and of several smaller islands, which are not inhabited. They are of volcanic formation, and earthquakes occur from time to time. They are hilly.

The temperature and climatic phenomena vary considerably on the E and W coasts. When the wind is blowing hard from the W or NW on the W coasts there are sometimes fresh E winds on the E coasts. There are no definite wet or dry seasons. The W and NW winds usually bring rain, but the rainfall is also heavy in the SE monsoon period. At these times the weather is very variable, and days of rain are succeeded by bright and clear weather.

The E coasts are particularly unhealthful. Discolored water is often met with off the E coasts of Kepulaun Mentawai, although during surveys of this area no bottom was found with 183m of wire out.

The villages of Kepulaun Mentawai are small and rarely exceed 100 inhabitants. Siberut, located on Pulau Siberut, at its SE end, is the only village of any importance. A Government official resides here. The inhabitants of the islands live mostly in the interior as the coastal areas are generally swampy. In language, customs and appearance, the people are unlike those of Sumatera and their origin is uncertain. They are very primitive and wear little clothing. Both sexes are generously tattooed. The people are peaceful and honest, but very shy.

Pulau Siberut

7.26 Pulau Siberut (1°20'S., 99°50'E.) is about 60 miles in length and from 15 to 24 miles in breadth. It is the N most large island of Kepulaun Mentawai.

It is a fairly high island, wooded, without any conspicuous points, and with low stretches of foreshore which the constant accumulation of stone deposits have formed. These flat stretches along the coast are covered by the rising tide and farther inland become extended marshes which dry sufficiently to be walked over after persistent droughts, but which are submerged in the rainy season.

The E coast is almost entirely overgrown with mangroves and has a few sandy beaches. The W and S coasts are nearly all sandy beaches, on which there is a constantly breaking surf, making landing difficult.

All the rivers of any importance discharge on the east coast and have bars at their mouths. They are passable only to boats.

Several small islands lie close to the coast on the E side; others interspersed with shoals lie off the SW and S sides.

The N coast of Pulau Siberut forms the S side of Selat Siberut. It is low but covered with tall trees.

Tanjung Siopa (0°59'S., 98°40'E.), the NW extremity, is a rocky point, from which a sandy beach, fronted by a reef to a distance of 0.3 mile, trends NE to the double point **Tanjung Amongorun** (Boompjeshoek) (0°57'S., 98°43'E.), a distance of 3 miles. A conspicuous white rock, located on the W head of

Tanjung Amongorun, is visible from some distance N. With the exception of Tanjung Amongorun, the whole shore is sandy.

Tanjung Sige (0°54'S., 98°54'E.), the E extremity, is low and thickly wooded.

Anchorage may be taken anywhere in Selat Siberut, in moderate depths, sand, from 1 to 2 miles off the N coast of Pulau Siberut.

Directions.—A course may be steered by day along the N coast of Pulau Siberut by passing 2 miles N of Tanjung Amongorun and 1 mile N of Tanjung Sige.

By night, vessels approaching from the W should steer for the light of **Pulau Bodjo** (0°38'S., 98°31'E.) and then pass S of it at a distance of 2 miles. Then bring the light to bear 276° and, while steering 096°, use it as a stern mark. From the E, steer for the light bearing 276°.

Caution.—A bank, with general depths of under 37m, extends for a distance of 14 miles from the N end of Pulau Siberut halfway across the strait and has a breadth of 12 miles.

Vessels from Padang or elsewhere passing W through Selat Siberut in thick weather may be affected by a cross current whose directions can not be given, but they usually follow that of the wind, with the consequence that a vessel may be swept onto the shoals on the ridge. The lead should be used constant use until the position of the vessel is assured.

There are a number of islets and reefs lying 1 to 1.5 miles offshore between Tanjung Sige and Tabekat Bay.

7.27 Labuan Badjau (0°56'S., 98°55'E.), close S of Tanjung Sige, is deep but the entrance to the inner part is very difficult due to reefs, difficult to distinguish, and nearly drying at LW.

Anchorage, sheltered from W winds, for vessels with local knowledge, is available in a depth of about 46m, with Pulau Masien, a low and wooded islet lying 4 miles SE of Tanjung Sige, bearing about 128°.

Anchorage is also possible, with local knowledge, about 0.7 mile S of Pulau Masien, in a depth of 11m, with the S entrance point of Labuan Badjau and Tanjung Sige in line bearing 321°.

Tabekat Bay (1°03'S., 98°57'E.) lies about 6 miles SE of Labuan Badjau. Tabekat, 285m high, is the highest hill on the NE part of the island and lies close W of the bay.

Anchorage may be obtained, in 14.6 to 18.3m, in the S basin of the bay.

Approaching the N entrance of the bay, steer for Tabekat in range with the S extremity of **Pulau Umana** (1°03'S., 98°57'E.) bearing 283° until **Pulau Karang** (1°01'S., 98°57'E.) comes into range with the sand cay about 1 mile S of it, bearing 339°.

A course of 260° should then be steered between the drying reef S of Pulau Umana and the drying spot on the N end of **Pulau Langeirak** (1°04'S., 98°57'E.). This passage is about 0.3 mile wide and the reefs on either side are steep-to.

When the whole of **Pulau Limo** (1°05'S., 98°57'E.) is open W of Pulau Langeirak, a vessel may anchor or proceed into Tabekat Bay, keeping along the coast of Pulau Langeirak to avoid the spit off the mouth of the river and anchor as desirable. Approaching the S entrance of the bay is not recommended.

Ujung Sikabalun (1°07'S., 99°00'E.), about 4.5 miles SE of Tabekat Bay, is very conspicuous from the N as well as from the S. The long row of high casuarina trees suddenly ends N of

it and the mangroves that border S. A large house, which is very conspicuous, stands among several smaller houses in the vicinity of the point.

Anchorage may be obtained under the shore of the point in depths of about 27m.

7.28 Telok Silogui (1°14'S., 99°02'E.) lies about 7 miles SSE of Ujung Sikabalun. It is about 1 mile long, E and W, and the entrance about 0.8 mile wide; it has general depths of 33 to 51m. A reef, with a depth of 2.3m, steep-to, lies in the entrance about 0.5 mile S of the N entrance point. Silogui River discharges into this bay. Anchorage may be obtained off the mouth of the river in 36.5m.

Telok Sipompong (1°17'S., 99°04'E.), about 5 miles SSE of Telok Silogui is about 1 mile long.

Off the entrance is the low, overgrown island, **Tabanan** (1°17'S., 99°05'E.), which, if entering the bay, is best left to the N. A conspicuous hill, rising to a height of 260m, lies about 4 miles W of Teluk Sipompong; the S summit of the hill is a sharp cone.

Saibi Road (1°20'S., 99°07'E.) lies about 4 miles SSE of Telok Sipompong.

To the W of **Pulau Panjang Saibi** (1°22'S., 99°07'E.), which has a peculiarly-shaped shallow cove with a narrow entrance, is a well-sheltered anchorage. The island may be passed on either side.

Off the village of **Maara Saibi** (Muarasaibi) (1°20'S., 99°05'E.), where there is a settlement of traders, is a wide, steep-to bank of mud and sand.

Small vessels may obtain anchorage on the E point of the bank in a depth of 9.1m.

Gosong Saibi di Tangah (1°19'S., 99°06'E.), located in Saibi Road, is reported visible.

7.29 Kasih Gosong Saibi (1°20'S., 99°07'E.), also located in the roads, is a drying reef with a sand patch; it was formerly an overgrown island.

Telok Saribua (Teluk Sarabua) (1°29'S., 99°09'E.) indents the coast about 6 miles in a NW direction, with the depths and width decreasing regularly.

The bay affords sheltered anchorage for vessels with local knowledge.

Laki Laki (Gunung Lagilagi) (1°26'S., 99°09'E.) rises near the coast to a height of 198m, it is conspicuous from both N and S.

Teluk Simalepet (1°34'S., 99°12'E.) affords a sheltered anchorage behind Pulau Simalepet in very bad weather. The N entrance is clear and safe. The S entrance is narrow. On the S side of the bay are two small mangrove islands, each surrounded by a reef.

Siberut Bay (Teluk Siberut) (1°36'S., 99°14'E.) may be recognized from a considerable distance by a gap between two ridges of hills situated behind the bay.

The town of Muarasiberut (Siberut) is the headquarters of the Government Official of Kepulauan Mentawai subdivision.

Anchorage, sheltered from all winds except those between N through E, is available behind Ujung Sikabai, the S entrance point of the bay.

A vessel approaching anchorage in Teluk Siberut should steer for the N side of the gap in the hills behind the town, bearing about 211°; when abeam of Kasih di Tengah, keep the pier head in line with the light green tree on the same bearing, which will lead into the anchorage.

7.30 From **Ujung Sikabai** (1°36'S., 99°15'E.) the coast trends SE for about 3 miles to **Ujung Pinang Pinang** (Ujung Rugurugut) (1°38'S., 99°17'E.), about 1 mile S of which is the entrance to Teluk Pinang Pinang. The latter is clear, affords sheltered anchorage to vessels with local knowledge, and can be entered without difficulty.

Between Ujung Sikabai and **Ujung Sibajau** (Tanjung Sibajau) (1°45'S., 99°17'E.), about 10 miles SSE, are several bays which can best be seen on the chart. Ujung Sibajau, the N entrance point of Telok Katurei, has some high trees.

Gosong Sibabui, a sunken coral reef marked by discoloration, lies from about 0.4 to 0.7 mile SE of **Pulau Sibabui** (1°44'S., 99°18'E.).

Telok Katurei (Teluk Katorai) (1°45'S., 99°15'E.) is limited to the S by two islands. Off the entrance are a few reefs which make entry more difficult, but they are, however, usually marked by rollers or breakers. The bay penetrates deeply into the land in a N direction; about 5 miles within the entrance the bay is divided into two arms.

To enter Telok Katurei, it is easiest and safest to enter by steering 270° for Ujung Sibajau and then shaping a course to pass just S of the reef extending about 0.7 mile WSW from this point. This reef may always be distinguished and nearly dries. When farther inside, keep along the E side of the channel; that is, close along the islands. Vessels of light draft may go into the inner reach of the bay.

To the W and just N of **Masehee Island** (1°43'S., 99°15'E.), the channel is difficult on account of the shoal depth and the drying reef S of **Ujung Masipehe** (1°41'S., 99°14'E.). There is always a little current setting out from the bay.

Coming from the S the channel W of **Siloina** (1°47'S., 99°17'E.) is not advisable on account of the reef located SSE from it, which can be distinguished only on very rare occasions. The 3.2m reef S of the above is never seen.

7.31 The S and W coasts of Pulau Siberut are densely overgrown. In the morning a thick mist hangs over the shore.

Near the SE end of Pulau Siberut are four large islands, as well as several smaller islands; all are uninhabited.

Pulau Karangmajat (Pulau Karamajet) (1°55'S., 99°18'E.), the S island, has a hill 41m high in the center with dark high trees, and is one of the few landmarks visible from **Selat Bungalaut** (1°55'S., 99°25'E.); on the SE point of the island are some dead trees. There are always heavy breakers on the S and W coasts.

Pulau Botiek (1°53'S., 99°16'E.), 1 mile NW of Pulau Karangmajat, is low and overgrown; on the shallowest patches of the reef on the W side of the island, there are usually rollers or breakers.

Pulau Mainu (Simaimu) (1°51'S., 99°18'E.), about 2 miles NE of Pulau Botiek, is low with high trees; there are dead trees on the E end, at which the sea always breaks.

Pulau Masokut (Nyang Nyang) (1°51'S., 99°14'E.), the largest of the four large islands and of which **Ujung**

Pulanggajet (1°51'S., 99°14'E.) is the SW end, lies 1.25 miles NW of Pulau Mainu; the SW end of the island is overgrown with dark, high trees and the sea always breaks on this point.

There is somewhat sheltered anchorage in a bay that indents the S coast of Pulau Masokut; anchorage may be taken in 18.3m SE of Muara Masausuh, a river that empties into the bay.

Telok Taileleo (Teluk Taileleu) (1°48'S., 99°11'E.), on the S coast, is clear and shoals regularly, but one is not sheltered against the swell which trends around.

Pulau Koraniki (Pulau Dodiki) (1°50'S., 99°08'E.) into the bay. There is a small settlement at the W end of the bay; the village of **Taileleo** (1°45'S., 99°08'E.) is situated about 2 miles N of it.

7.32 Tobow (1°47'S., 99°07'E.), a hill, rises to the W of Teluk Taileleo and is conspicuous from Selat Bungkalaut.

Pulau Koraniki, **Pulau Ngiau** (Si Nyau Nyau) (1°52'S., 99°05'E.), and **Pulau Jujuat** (1°48'S., 99°02'E.) are low, densely overgrown, and uninhabited islands.

Selat Bungalaut (Seaflower Channel) (1°55'S., 99°25'E.) is formed between the islands off the S side of Pulau Siberut and Pulau Sipura. The channel is deep and about 15 miles wide. It is clear of dangers except for a 1m patch, which is not marked by discoloration, and located about 2 miles NW of **Pulau Pototogot** (2°01'S., 99°33'E.). There is no suitable anchorage in the channel.

A current setting to the E at the rate of 2 knots has been reported in Selat Bungalaut at 1 hour 30 minutes after HWS tides.

Due to the mud carried into the sea by the rivers, the sea along the W and S coasts of Pulau Siberut is not clear and the reefs are not marked by discolored water, although they are marked by rollers or breakers, this being dependent upon the direction and height of the swell.

The rock 1 mile S of **Pulau Koraniki** (1°50'S., 99°08'E.) is always marked by heavy breakers.

At the larger rivers, and also at **Simalubek** (1°37'S., 98°50'E.) and **Kali Simatalu** (1°27'S., 98°45'E.), but especially from **Kali Simaleki** (1°09'S., 8°38'E.) to near the N coast of Pulau Siberut, there are frequently strong discolorations caused by the river water.

Tanjung Simansih (1°41'S., 98°52'E.) lies 18 miles WNW of the W entrance point of Telok Taileleo.

Both points are low and projecting, are overgrown with casuarina trees, and always stand out from a distance.

On the steep coast N of Tanjung Simansih are a few white and yellow spots, a result of slides of rocks and trees which have carried with them the vegetation, either completely or in parts.

New patches appear from time to time and old spots become less prominent.

At **Kali Simatalu** (1°27'S., 98°45'E.), about 11 miles NW of Tanjung Simasuket, is a gap plainly visible when abeam.

Tetekuku (1°33'S., 98°50'E.), a fairly conspicuous hill rising to a height of 375m, stands about 7 miles SE of Kali Simatalu.

Tanjung Sakaladat (1°12'S., 98°35'E.) is the W extremity of Pulau Siberut. A cone-shaped hill rises to a height of 406m about 10 miles ENE of the point. A 246m hill and a 298m hill lie 6 and 17 miles, respectively, SE of Tanjung Sakaladat.

At **Kali Simaleki** (1°09'S., 98°38'E.) is a rocky headland; the sea breaks heavily on a rock off this headland.

Chinambeleo (1°07'S., 98°39'E.) is a conspicuous 145m high hill rising about 6 miles NE of Tanjung Sakaladat. About 2.2 miles N of Chinambeleo is a 186m high hill that is also conspicuous, especially when viewed from the N.

A depth of 24m lies about 7 miles WNW Tanjung Sakaladat.

7.33 Pulau Sipura (Pulau Sipora) (2°10'S., 99°38'E.) is a densely overgrown island; the W coast is low, with numerous bays. The ridges of hills are not high and present no conspicuous landmarks; the S point of the island is low.

Siburu Bay (Teluk Siburu) (2°01'S., 99°35'E.) is formed by the N coast of Pulau Sipura and Pulau Siburu, Simakakak, and Pototogat. There are a few low hills on the islands. The depths in the bay range from 37 to 73m over a sandy bottom. The bay affords good anchorage, sheltered from swell and all winds, for vessels with local knowledge.

In navigating the E entrance of the bay S of Pulau Siburu, care must be taken to avoid the reefs extending S of the island. Reefs are also located NW of a line joining the SE points of Pototogat and Pulau Siburu.

To the SE of Siburu Bay, for a distance of about 7 miles, the coast forms deep, narrow inlets, which are not inhabited.

Siuban Bay (Teluk Siuban) (2°11'S., 99°43'E.) is the only bay of importance on the E coast. A detachment of armed police is encamped here, and this bay is the greatest shipping point for coconuts. The bay is clear and is easily navigated without aids. The S side may be recognized from a considerable distance on account of the cleared tongue of land on which the police camp buildings are located. In the inner part of the bay is a landing pier for small vessels.

Telok Semebai (Teluk Simabai) (2°17'S., 99°47'E.), about 7 miles SE of Siuban Bay, is easily navigated. Near the middle of the bay is a small drying sandbank which may be passed on either side. To the S of this bank the bottom is mud and the depths from 18.3 to 37m.

Tanjung Kinapet (Tanjung Batu Kinapat) (2°24'S., 99°51'E.) is the S point of Pulau Sipura and is fringed by a narrow reef.

7.34 Teluk Siberimanua (2°08'S., 99°33'E.) indents the W coast of Pulau Sipura in a SE direction; it has a good anchorage ground.

The bay is sheltered by **Pulau Pitoyat** (2°08'S., 99°31'E.), which is low and thickly wooded and another island on the same reef lying to the NW.

Pulau Noko (Muko) (2°13'S., 99°32'E.), a low and densely overgrown island, lies about 5 miles S of Pulau Pitoyat; it is separated from the shore by a clear passage with a least depth of 12.8m in the middle.

Simailipit (2°14'S., 99°35'E.) and Trait, are two deep bays SE of Pulau Noko. The depths decrease regularly and the coastal reef in each bay always breaks, so that they may be entered without difficulty. The vessel, however, is apt to roll considerably, as there is no shelter against the prevailing SW swell.

Pulau Siduamata (2°22'S., 99°43'E.), about 7 miles W of Tanjung Kinapet, is low and densely overgrown. Off the SW

and SE sides is a fairly broad fringing reef. There is a small bay on the N coast where the Malay traders load produce.

There is a depth of 12.8m through the channel between Pulau Siduamata and Pulau Sipura.

Under the shore of Sipura, NW of Pulau Siduamata, is **Tobo** (2°20'S., 99°43'E.).

Selat Sipura (Sipora Strait) (2°30'S., 99°50'E.) is about 10 miles wide between the S extremity of Pulau Sipura and the N extremity of Pulau Pagai Utara. The ridge on which Kepulauan Mentawai lie is about 8 miles wide between the 200m curves, and is steeper on the NE side than on the SW. Generally speaking, the highest part of the ridge has depths of from 37 to 55m.

On the E side of Pulau Sipura the current was reported setting to the SSE between the N end of the island and Selat Sipura from 1 hour before LW to 3 hours before HW; the current was setting W between the S extremity of **Pulau Sipura** and the N extremity (2°30'S., 100°00'E.) of Pulau Pagai Utara from 3 hours to 1 hour before HW.

7.35 Pulau Setan (1°58'S., 99°34'E.) consists of several small, steep rocks. About 1 mile NW of Pototogat is a coral shoal with a least depth of 11m; this shoal is not marked by discoloration.

A reef, with a depth of 4.6m, lies about 3 miles ESE of the SE end of **Pulau Siburu** (1°59'S., 99°35'E.).

Three drying patches, the middle of which is a sand cay and visible at HW, lie about 3 miles SE of the S entrance point of **Telok Semebai** (2°17'S., 99°47'E.).

About 2 miles N of **Pitoyat** (2°08'S., 99°31'E.) and about 1 mile offshore is a shoal with a least depth of 6.4m; there is a clear channel into Teluk Siberimanua on either side of Pitoyat.

A ridge with depths under 18.3m extends to the NW from **Pulau Noko** (2°13'S., 99°32'E.) up to a distance of 1.5 miles.

A detached patch with a depth of 16.5m is located about 2 miles SW of the island.

In Selat Sipura, a shoal, with a least depth of 11m and about 1 mile in extent, lies about 4 miles W of the N end of Pulau Pagai Utara; otherwise the strait is clear of any known dangers.

Simangkocho (Gunung Simakoyo) (2°19'S., 99°47'E.), a plain, solitary cone, rises to a height of 234m about 6 miles NNW of the SE end of Pulau Sipura.

When viewed from the NW and SE this hill appears as a sharp cone; from the NE and SW it is not so sharp, but well-defined on account of the surrounding low land. It is also visible from the W coast.

A 313m high hill stands on the NE coast of Pulau Sipura, about 7 miles SE of Pulau Siburu; when seen from the N or SE, it appears as a level ridge extending in an E and W direction. Along the E coast, close behind the beach, are many small hills.

Kepulauan Pagai

7.36 These two islands, Pulau Pagai Utara and Pulau Pagai Selatan, are separated by the deep and narrow Sikakap Strait.

When passing down the E coasts of Pulau Pagai Utara and Pulau Pagai Selatan at an average distance of 3 miles from the shore no current was found on ebb tide. After LW at Selat

Sipura a N current was experienced for 4 hours running at a rate of 3.5 knots.

Pulau Pagai Utara (North Pagi) (2°40'S., 100°05'E.) is hilly, but the peaks are difficult to distinguish. The hilly land lies in the middle of the island and extends in a NW and SE direction. The coast is flat practically throughout. Only the N part of the W coast is hilly and rocky in places; the SW, S, and E coasts are low and marshy. The island is fringed by a very narrow coast reef and the 20m curve runs close along the shore.

Taluung Simapinang (Pinang Pinang) (2°30'S., 100°00'E.), the NE point of the island, is overgrown with casuarina trees and stands out sharply. The entire E coast is low and marshy with few coves and heights.

Saumanganyo Road (2°36'S., 100°07'E.) is located about 10 miles SE of Tanjung Simapinang.

Tanjung Simatobe (2°39'S., 100°10'E.) lies about 4 miles SE of Saumanganyo Road; the entrance to Selat Sikakap lies about 8 miles further SE.

Tanjung Takarimau (2°34'S., 99°58'E.), on the W coast of the island, is a rocky point.

7.37 Tanjung Sigogoa (2°37'S., 99°58'E.) stands out sharply as a steep, solitary rock which is connected to the shore by a narrow tongue of land. Batu Malai indents the coast between the two points.

Si Labulabu Bay (2°45'S., 99°59'E.) indents the coast about 8 miles S of Tanjung Tumale; it is most easily entered by passing N of Si Labulabu Gedang and then continuing to the anchorage NE or E of Silabulabu Kechil; the narrow channel between the two islands which has depths of 10.5 to 17.8m.

Betumonga Bay (Teluk Betumongo) (2°49'S., 100°00'E.) to the S of Si Labulabu Bay, and **Sabeo Guguk** (2°50'S., 100°03'E.), on the S coast of the island, are both clear but open to SW swell.

Sikakap Strait (Selat Sikakap) (2°48'S., 100°10'E.) separates Pulau Pagai Utara and Pulau Pagai Selatan. In the middle of the E entrance is the island of **Tonggo** (2°47'S., 100°14'E.), which, although hilly, with a conspicuous tree in the middle, is difficult to distinguish from the offing against the shore behind it. The passage S of this island reportedly could not be used.

The E part of the strait, about 0.2 mile wide, is deep and clear, with hilly and densely overgrown shores.

In the W entrance of the strait are the islands of **Nusa** (Siruso) (2°51'S., 100°08'E.), **Siopa Besar**, and **Siopa Kechil**; Nusa is marked by a light.

Tides—Currents.—Along the N coast of Pulau Pagai Utara, in the vicinity of position 2°30'S, 99°54'E, a current with a velocity of 1.5 knots is occasionally encountered, probably caused by irregular depths.

In Selat Sipura there is seldom more than a 2 knot current, even at springs; the current changes at the times of high and LW.

7.38 Si Jau Jau (2°31'S., 100°03'E.) and **Kiki** (2°33'S., 100°04'E.) are the largest of some low sandbanks lying about 1 mile offshore and 3 to 5 miles SE of Tanjung Simapinang.

Vessels should keep outside of them as there are several shoals between them and the shore.

A 5.5m patch lies in Saumanganyo Road, about 0.5 mile N from the N end of **Saumanganyo Islet** (2°36'S., 100°07'E.); a reef with a depth of 1.4m lies about 0.2 mile SSW from the same point. A group of shoals lies about 2 miles N of Tonggo.

Togut (2°46'S., 100°12'E.) rises to a height of 243m, close to the N shore of the E entrance to Selat Sikakap; it is an excellent landmark from any place on the E coast.

A small hill with a conspicuous tree on **Siopa Besar** (2°53'S., 100°10'E.), and the 315m hill, also with a conspicuous tree, on Pulau Pagai Selatan are good landmarks when approaching Selat Sikakap from the W.

Anchorage.—Good anchorage can be obtained between Si Jau Jau and Kiki, lying about 1.2 miles SE. Vessels should keep outside of them as there are several shoals between them and the shore.

Si Labulabu Bay (2°45'S., 99°59'E.) affords a calm anchorage.

7.39 Pulau Pagai Selatan (South Pagi) (3°00'S., 100°20'E.) is also hilly, especially in the N part, and presents the appearance of a high dune landscape.

The ridge, about 368m high, which practically extends across the island and slopes toward the sea E of Bitojat Besar, is conspicuous from the NW as well as from the SE. The ridge is nearly as flat as a table.

The hill, 315m high, with a conspicuous tree, is conspicuous from the W, N, and E.

The hills situated on the S promontory are detached and visible from the W as well as from the E coast.

The islands near the W coast are all low, densely overgrown, and uninhabited. The two N islands, **Bitojat Besar** (Pulau Pitojetsabeu) (3°01'S., 100°09'E.) and Bitojat Kechil, close E, are separated by a narrow channel with a depth of 9.1m in mid-channel.

Pulau Sibigau (3°04'S., 100°11'E.), about 2 miles SE of Bitojat Besar, and on which there is a conspicuous tree, is connected to Pulau Pagi Selatan by a ridge with less than 18.3m of water.

On this ridge is the island of **Ragi** (3°03'S., 100°13'E.), which is fringed by a wide coastal reef. Elsewhere the depths are not less than 11m.

Tanjung Beritarikap (Bio) (3°21'S., 100°27'E.), the S end of Pulau Pagai Selatan, is a tongue of land about 2 miles wide on which there is nearly always heavy breakers. On the E side of this land, close under the shore, are several islands which, from seaward, are difficult to distinguish from the coast.

Veeckens Bay (Teluk Veeckens) (3°10'S., 100°27'E.) is spacious and formed between the coast of Pulau Pagi Selatan and a group of low islands, all of which are densely overgrown and uninhabited. The depths in the bay range from 26 to 55m, sand and mud, but one may pass deep into the NW part of the bay, between the islands, in depths not less than 14.6m. Shoals and rocks are easily distinguished so that navigation presents no difficulty.

Pulau Taitaitanopo (Tinopo) (3°10'S., 100°30'E.) lies on the E side of Teluk Taitaitanopo, and **Pulau Siumang** (Saumang) (3°14'S., 100°31'E.) lies about 2 miles to the S.

Pulau Simonga (Simungguk) (3°16'S., 100°34'E.) lies about 2.7 miles SE of Pulau Siumang.

Tanjung Laggaisao (Sibelua) (3°01'S., 100°28'E.) about 8 miles N of Veeckens Bay, stands out sharply, and from the S and N is made conspicuous by an obliquely overhanging tree.

About 1 mile S of this point is a cove about 1 mile in length, which is foul with rocks and islets.

7.40 Labajau (3°05'S., 100°28'E.) lies close to the coast about 4 miles S of Tanjung Laggaisao; it is fringed by a reef on its E side.

The coast N of Tanjung Laggaisao is low with a few small hills in the interior. Farther N the coast is hilly and in some places rocky, with plantations here and there on the slopes and some villages by the rivulets. About 4 miles SE of the entrance to Selat Sikakap the coast line becomes irregular, and there are many small islets, of which the outer and larger are known as **Si Jau Jau** (2°46'S., 100°17'E.). The passage between these islands and the coast is not navigable.

7.41 Selat Sanding (Sanding Strait) (3°25'S., 100°35'E.), between the S end of Pulau Pagai Selatan and Pulau Sanding, is clear, 12 miles wide, with depths of 37 to 82m. The only obstructions are Europa Reef and some rocks extending from the N side of Pulau Sanding.

Pulau Sanding (3°28'S., 100°39'E.), the SW most of Kepulaun Mentawai and lying about 13 miles SE of Pulau Pagai Selatan, is low and densely overgrown. It is inhabited by a few Malays who gather coconuts. The coastal reef is very narrow along the S and W coasts; it is about 3 miles wide on the N side of the island. The entire edge of the coastal reef, except on the SW side, is lined with small, overgrown islets.

Stupai Islet (3°27'S., 100°41'E.), NE of Pulau Sanding, is the largest. A channel in the coastal reef, W of this island, forms a good but narrow road for small vessels. The island on the NW point of the coastal reef is difficult to distinguish from the shore.

Between **Libuat Island** (3°07'S., 100°14'E.) and Silau Island, about 6 miles SE, is a reef on which the sea always breaks; it lies about 2 miles SE of Libuat Island.

The reef between Silau Island and **Pulau Sibarubaru** (Si Baru Baru) (3°17'S., 100°20'E.) is also nearly always marked by breakers.

7.42 Si Jau Jau (3°09'S., 100°31'E.), lying E of the N end of Pulau Taitaitanopo (Tinopo), has reefs extending about 0.3 mile N and about 0.375 mile S from it. A 5.5m patch lies about 1 mile SSE of the S extremity of the island, with a 9.1m patch between.

There are also two patches with depths of 3.7 and 5.5m N of Si Jau Jau.

Pulau Simonga (Simungguk), S of Pulau Taitaitanopo, should not be approached closer than 2 miles on the SW side as there are frequently rollers which would indicate that the depth is less than 5.5m.

The reefs NW and SE of Pulau Simonga have depths less than about 3.7m and are frequently marked by rollers or breakers.

A rock which dries lies about 0.45 mile E of Labajau; another rock, with a depth of less than 1.8m, lies about 0.2 mile S of Labajau. Another rock, which dries, lies about 2 miles E of the S extremity of Labajau.

Europa Reef (3°31'S., 100°33'E.), which breaks, lies about 4.2 miles WSW of Pulau Sanding and consists of two detached patches separated by deep water.

From the highest point of Sanding the two patches bear 255° and 245°, respectively, from the summit on the S end of Pulau Pagai Selatan, they bear 147°. These patches are frequently marked by rollers or breakers, and the least depth is probably not more than 7.3m.

Directions.—Veeckens Bay is most easily and safely entered from the S. The channel depth ranges from about 18.3 to 37m.

The bay is also easily reached from **Tinopo Strait** (3°08'S., 100°29'E.), but the E side of this strait should be avoided. By steering 216° through the middle of the strait, one passes between the drying reef E of Labajau and the 5.5m shoal N of Si Jau Jau.

One may also make Tanjung Laggaisao (Sibelua) and then steer close under the shore through the strait, avoiding a drying rock E of Labajau. The reefs in this vicinity are not very well marked by discolored water.

Tio Bay (Teluk Tiop) (3°13'S., 100°21'E.), E of Silau Island, affords good anchorage, sheltered against ocean swell, for vessels with local knowledge.

Veeckens Bay offers a safe anchorage, but as all islands are infested with mosquitoes, it is not advisable to anchor close under the shore.

Pulau Mega (4°00'S., 101°02'E.), lying about 38 miles SE of Pulau Sanding, is 2 miles in length and surrounded by a reef

It is low and densely overgrown, and should be visible for a distance of about 15 miles in clear weather.

Anchorage may be taken in 22m, sand and coral, about 0.5 mile off the E coast of the island, with the extremities of the island bearing 225° and 315°.

7.43 Pulau Enggano (Engano) (Telanjang) (5°23'S., 102°15'E.), the S most of the large islands fronting the W coast of Sumatera, lies about 60 miles W of Sumatera.

Pulau Enggano is about 20 miles long and about 10 miles wide. A range of hills runs through the island from NW to SE.

The hills extend down to the sea along the SW and S but the island is lower and more level toward the NW and NE sides. It is densely wooded, unbroken by a field of grass or a trace of cultivation; it can not be said to have a beach, as the trees reach to and overhang it.

A quantity of coconut trees are seen along the coasts; the sea breaks furiously on the drying coral reefs which fringe the island. There are heavy breakers on the reefs even in the calmest weather. The island forms part of Benkulen Province.

Teluk Enggano (Engano Bay) (5°28'S., 102°24'E.), the principal anchorage, is on the E side of the island, and has in its entrance three small islands surrounded by reefs, which always break heavily.

Pulau Dua (5°27'S., 102°24'E.) is inhabited and covered with trees; except for a small opening on the W side, it is surrounded by a coral reef of considerable extent, partly dry at LW, but having depths of 7.3 to 18.3m close-to.

Marbau, an island about 2 miles S of Pulau Dua is also covered with trees and surrounded by a reef, which on the W side extends but a short distance.

There is a deep, narrow passage apparently between the reef off the S side of Marbau and the reef which extends SE of **Tanjung Kahoabi** (5°29'S., 102°23'E.).

Bangkei, the middle island of the three and the smallest, is conspicuous from the sea, having a high sandy beach, with a tuft of trees near the center. It is located on the outer detached reef which lies off **Eumo Point** (5°27'S., 102°23'E.), the NE point of Telok Kiowa, a deep cove in the S part of Teluk Enggano.

A 3.2m patch lies about 0.5 mile NE of Bangkei and a 3.7m patch lies about 0.2 mile N of Bangkei.

The coastal reef on the NW side of Pulau Dua is extending to the NW. Telok Labuho, uninhabited, lies within **Tanjung Labuho** (5°31'S., 102°17'E.).

On the SW side of Pulau Enggano, there is a small bay between **Pulau Satu** (5°28'S., 102°14'E.) and the shore.

At **Tanjung Kioyo** (5°25'S., 102°12'E.), about 4 miles NNW of Pulau Satu, the coastal reef extends in a rocky spit and forms a deep cove.

Tanjung Kooma (5°21'S., 102°06'E.), the W extremity of Pulau Enggano, lies about 8 miles NW of Tanjung Kioyo.

7.44 Tanjung Lakoaha (5°17'S., 102°10'E.), the N extremity of the island, lies about 6 miles NE of Tanjung Kooma.

The coast reef along the NE coast is narrow; the sea bottom is steep-to and clear, except at Malakoni, where close under the shore there are a few detached rocks and shoals.

Malakoni (5°21'S., 102°17'E.) is the principal settlement of Pulau Enggano. It is located about 9 miles ESE of Tanjung Lakoaha. It is a port of call for local steamers and a Native Administrator resides here; a light is shown from Malakoni.

Two detached reefs, with depths of 4.1 and 4.6m, lie about 0.5 mile SW of Pulau Dua. In the channel N and W of Pulau Dua other shoal patches exist. A depth of 11m was reported to lie about 0.6 mile N of the W end of Pulo Pulau.

A 16m patch lies about 4 miles S of **Tanjung Kahoabi** (5°29'S., 102°23'E.).

Black Rock (5°31'S., 102°16'E.), 2.4m high, lies about 0.5 mile off Tanjung Labuho, the S point of Pulau Enggano.

About 2 miles SE of the same point are some shoal patches with a least depth of 3.5m.

For navigation around Pulau Enggano at greater distances, the hilltops of the main chains are sufficiently good objects for bearings.

Buabua (5°25'S., 102°17'E.), 281m high, is the highest and most conspicuous.

7.45 Nanuua (5°27'S., 102°20'E.), 195m high, on account of its saddle shape, is also fairly conspicuous from the NE, W, and SW. The 107m hill on the SE point stands out sharply above the low, sloping promontory.

Anchorage.—In Teluk Enggano, the best anchorage is 327°, distant about 0.3 mile from the W point of Pulau Dua, in 26m, sand. There is also anchorage between Marbau and Bangkei in 16.5 to 33m, sand, NW of Marbau; both these are fairly sheltered anchorages.

Anchorage can also be obtained in about 20m, to the NW of Pulau Dua, with the conspicuous 107m high hill, located about 2 miles W of Tanjung Kahoabi, bearing 219° and the N tip of Pulau Dua bearing 105°.

There is anchorage in a small bay between Pulau Satu and the shore for small craft in about 14.6m, sand, with the S end of the island bearing 281°, distant 0.3 mile.

Directions.—To approach Teluk Enggano, steer 248° N of Pulau Dua and anchor as directed above.

7.46 Barohia Anchorage (5°18'S., 102°08'E.), a little W of the N point of Pulau Enggano, is a narrow inlet in the fringing reef, extending E and W nearly 0.8 mile and having in mid-channel a depth of 11 to 14.6m, except near the head, where there are shallow patches near the landing place. This anchorage is not safe in the W monsoon period.

Excellent anchorage is obtained off the settlement of **Malakoni** (5°21'S., 102°17'E.). Vessels are advised to veer about 24m of cable and to steer 235° towards the mouth of the river, continuing on that course until the anchor holds. The mouth of the river is easily distinguished.